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## Remarks

Before entry of the amendment, claims 15-23 are pending. After amendment, claims 15-24 are pending.

New claim 24. The amendment includes new claim 24, which recites that the surfactant is "essential" and has the chemical role "as an emulsifier" with "water and oil components." Support for the new claim comes from the specification throughout. See, for example page 15, paragraph 45 "essential" surfactant" and page 18 paragraph 2, first sentence "essential surfactant, water and oil components."

The term "essential surfactant" is clear from the context of the specification and means that the surfactant properties arise essentially from this component (the component is not trivial but creates the important surfactant properties). Furthermore, other additions made in smaller amounts do not essentially alter this property. The property is essential. Applicants further point out that this meaning of "essential" as used in claim language in this art is well known. See for example

### US No. 6,641,805

14. A cosmetic composition comprising 0.1 to 30% by weight of the copolymer according to claim 1 as an *essential component* and additionally containing at least 0.1% by weight of a fluorine compound-treated powder and/or a fluorine-containing oil.

### US No. 6,407,054

6. The composition as claimed in claim 1 or 2, which comprises glycerol as an *essential component* which is contained in an amount of 20% by weight or less as compared with the sum of the total amount of the components (a) and (b) and the amount of the surfactant other than the components (a) and (b).

### US No. 6,121,355

3. The water dispersion pressure-sensitive adhesive composition according to claim 1, wherein said dispersant (C) is a water soluble or water dispersible polymer (c), and/or a salt thereof, having an acid value of not less than 200 and obtained by polymerizing polymerizable monomer components comprising, as an *essential*

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**component**, an unsaturated carboxylic acid, in the presence of an alkyl mercaptan having an alkyl group having 6 to 18 carbon atoms.

All claims have been clarified by amendment to recite that a protonated form of an N-C<sub>8-24</sub> acylamino acid is used and blended in a ratio of between 1.0 to 1.6 equivalents of the alkali salt of the amino acid relative to the protonated acylamino acid. Additional clarification, which more distinctly points out the limiting amount of counter cation, is provided by amendment to claims 16 to 19 : "wherein the amount of alkali in the surfactant is between 1.2 to 2 equivalents relative to the amino acid, if an acidic amino acid, and is between 1.0 to 1.4 equivalents relative to the amino acid if a neutral amino acid."

The added information is supported by the specification, for example, on page 10, paragraph 30, and page 12, paragraph 32 and new matter is not added.

Applicants further point out that the term "if an acidic amino acid" is amply supported on page 10, paragraph 30 "[I]n the case where an amino acid has two carboxyl groups." Also see page 11, paragraph 31 "[h]owever, where the....has two carboxyl groups...." The phrase "if" is more clear and superior for claim language than "in the case where."

Applicants further point out that the term "if a neutral amino acid" is amply supported by the specification, which teaches the alternative use of neutral amino acids. See for example page 9, paragraph 28 "[I]n this invention, the amino acid is preferably acidic or neutral...." More specifically, see page 11, paragraph 32, "[t]he amount of alkali salt of an amino acid is ....particularly 1.0 to 1.4...." The specification teaches the use of acidic (two carboxyl groups, one net - charge) and neutral (one carboxyl group, net 0 charge) in the alternative and teaches that the preferred amount of matching alkali salt is 1.0-1.4.

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The recitations have been added to more particularly point out and distinctly claim desired embodiments. Accordingly, entry of the amendment urgently is requested.

Consideration and allowance earnestly are solicited.

**"The Invention Is: "**

Applicants agree with the Examiner that numerous workers have prepared salts of amino acids and salts of acyl amino acids, and combined these in aqueous solutions. However, this is not the claimed invention.

The term "ion pair" has a meaning, both in the art to a skilled artisan and also in context of use in the specification, which differs from the interpretation of the Examiner. Indeed, the specification begins with a summary of the same background art that is exemplified by the Examiner's citations "most popular soap is alkali metal salt soap....the alkali metal soap has some defects..." (page 1 second sentence of "Background Art." ) The claimed invention overcame those defects by controlling the alkali salt via use of protonated form of the acyl amino acid. This main point is stressed repeatedly in the specification and specific limiting values are provided, for example, on pages 10 and 12, as well as by example.

As explained in the background section of the specification, uncontrolled use of alkali counter ion was found to cause a problem. Without wishing to be bound by any one theory for how this embodiment operates, applicants point out that when both acyl amino moiety and the regular amino acid moiety are prepared

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and used as salts (as in previous art), the ionized forms of the acyl amino acid and regular amino acid indeed are all accompanied by other counterions, such as potassium, sodium and chlorine. However, as described in the specification and as claimed, the acyl amino acid and the non-acyl amino acid really do form an ion pair in solution, as there are limiting amounts of counter ion. That is, the acyl amino acid is a counter ion of the non-acyl amino acid. Of course, in solution, all ions are surrounded by layers of water. But the opposite charged ions are nearby.

As described and exemplified, there are insufficient non-amino acid counter ions in solution. A skilled artisan reading the specification would know this, and would know that the protonated form of the acyl amino acid is a counter ion with the other claimed moiety. The Examiner specifically is requested to accept or deny this scientific fact, so that applicants can prepare a declaration from a skilled artisan, if necessary.

Entry of the claim amendments earnestly is requested. The undersigned attorney is available at 202-742-6697 and plans to call the Examiner within one week to discuss this case.

Respectfully submitted,

  
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